Response to General Assembly resolution 71/67 “Nuclear Disarmament Verification”

United Kingdom of Great Britain and Northern Ireland, July 2017

Executive Summary

Verification underpins the successful implementation of most major treaties. This includes multilateral arms control and disarmament agreements as well as regional and bilateral arrangements. The United Kingdom sees the development of effective verification measures as essential to enable future treaty-governed nuclear disarmament.

States will require a high level of assurance in the compliance of others as nuclear weapons are reduced and eliminated in conformity with future treaty obligations. Verification is the established way in which States can gain such assurance. Furthermore, new verification measures will be required to maintain a world without nuclear weapons. Verification measures should be developed now to ensure treaties and agreements which will govern disarmament can be agreed and implemented in the future.

The United Kingdom has undertaken significant work on verification including with the United States and Norway. This has identified key technical challenges which must be addressed if sufficient confidence can be gained while protecting safety, national security and non-proliferation obligations. The International Partnership for Nuclear Disarmament Verification and the Quad Nuclear Verification Partnership are making important progress in taking forward and multilateralising this work. While significant progress has been made, many aspects remain unresolved. Further initiatives and the involvement of more States will be required to enable the development of the full range of verification solutions needed. The United Kingdom believes that the Group of Government Experts represents an important opportunity for States to understand and develop practical and effective nuclear disarmament verification solutions. The group should:

1) Identify the verification challenges associated with achieving and with maintaining a world without nuclear weapons
2) Review verification work undertaken to date
3) Identify key lessons learned and unresolved issues
4) Identify and report on how such issues could be addressed
5) Consider how to encourage more States to undertake efforts in developing and strengthening nuclear disarmament verification measures.
United Kingdom’s views on the importance of practical and effective nuclear disarmament verification measures in achieving and maintaining a world without nuclear weapons

The United Kingdom was pleased to co-sponsor the General Assembly resolution 71/67 entitled “Nuclear Disarmament Verification” and welcomes the opportunity to respond.

The United Kingdom recognises the importance of developing and strengthening practical and effective nuclear disarmament verification measures. Achieving a world without nuclear weapons will not be possible without effective verification. States will require a high level of assurance in the compliance of others to reduce and eliminate nuclear weapons. Verification is the established way States can gain such assurance. To gain maximum confidence from verification it is important that States understand the measures being implemented. Involving both nuclear and non-nuclear weapon States in developing verification measures will help ensure all States have confidence that obligations under future disarmament treaties are being met.

It will take time and effort to reach a world without nuclear weapons. Robust and effective technical verification measures will need to be ready to be applied when such time comes. In this way, negotiators of future disarmament treaties will have the required verification options available, to ensure such treaties create the confidence required to progress disarmament. To enable this to be possible in the future, verification measures should be developed now. While verification is not an aim in itself, work on developing and strengthening verification measures will be a necessary part of ensuring a world without nuclear weapons is achievable.

Furthermore, effective verification measures will be required to maintain a world without nuclear weapons. When such time comes, former possessor States will likely still have significant infrastructure and capabilities associated with their former programmes, and ensuring such facilities and capabilities are re-purposed or eliminated will take time. The assurance that verification can provide will be vital in establishing confidence that all States are maintaining their obligations under future disarmament agreements. Further thought will also be required to understand if current safeguards measures will be practicable or sufficient, when applied in the long term to all States, to provide the confidence required in maintaining a world without nuclear weapons. Without such verification States will not be able to be fully assured of their security, and the pressure to proliferate and develop nuclear weapons again may be present.

Efforts taken at the national level to develop practical and effective nuclear disarmament verification measures

The United Kingdom has undertaken substantial work to date on developing practical and effective nuclear disarmament verification measures. We began a national programme on such verification measures at our Atomic Weapons Establishment following the Strategic Defence Review in 1998. This programme has undertaken a series of exercises, including in collaboration with our partners in the United States and Norway, to establish how the dismantlement of nuclear warheads can be verified. This represents one of the most crucial and difficult aspects of nuclear disarmament verification: How to allow foreign inspectors, including those from non-nuclear weapon States, to undertake activities within nuclear weapons facilities, whilst maintaining safety, security and within the obligations of the Nuclear Non-Proliferation Treaty.
The United Kingdom has identified the following key tasks which need to be achieved while protecting safety, security and proliferation sensitive information.

1) How to ensure appropriate access to foreign inspectors and equipment into nuclear weapons facilities
2) How such inspectors can gain confidence an item presented is a nuclear weapon
3) How inspectors can maintain a chain of custody of a nuclear weapon through the dismantlement process

The United Kingdom has investigated a range of technical solutions to these key challenges, including in collaboration with our partners. While significant progress has been made, many aspects still remain unresolved. Further additional challenges have yet to be addressed, including around the correctness and completeness of any declarations on nuclear weapons, and on verification measures which may be needed to maintain a world free of nuclear weapons.

By working with Norway, a non-nuclear weapon State, we have been able to identify the skills and expertise required to enable successful work on verification. Most States possess individuals with the skills required to work on verification, including those familiar with other verification regimes (i.e. IAEA, OPCW, CFE), internal regulation and compliance, nuclear safety and security, explosive safety, military site security, scientists and engineers and many other relevant skills. To develop chain of custody techniques and technologies which can be used in sensitive facilities under nuclear and explosive regulation is therefore possible in most States. We remain convinced of the important role of non-nuclear weapon States in disarmament verification.

Most recently the United Kingdom is taking leading roles in both the International Partnership for Nuclear Disarmament Verification (IPNDV) and the Quad Nuclear Verification Partnership (QNVP) between the UK, USA, Norway and Sweden. These two initiatives build on previous work and are developing multilateral approaches. These initiatives widen the field of expertise, allowing a much wider range of issues to be discussed and verification solutions to be found. However, further initiatives and the deeper involvement of more States will benefit the development of the full range of verification solutions needed.

**Possible activities to be undertaken by the Group of Government Experts**

The United Kingdom welcomes the opportunity to discuss the importance of developing and strengthening practical and effective nuclear disarmament verification measures in achieving and maintaining a world without nuclear weapons.

The United Kingdom believes amongst the activities and deliverables that the Group of Government Experts can reasonably achieve in the timescale set for its deliberations it should:

1) Identify the verification challenges associated with achieving and with maintaining a world without nuclear weapons
2) Review verification work undertaken to date
3) Identify key lessons learned and unresolved issues
4) Identify and report on how such issues could be addressed
5) Consider how to encourage more States to undertake efforts in developing and strengthening nuclear disarmament verification measures
The previous work the Group may wish to look at should include but not be limited to: work undertaken between the United States and Russia for the START family of Treaties; the trilateral initiative between Russia, the United States and the IAEA; the UK-US verification programme; the UK-Norway Initiative; the QNVP and the IPNDV. Further, taking lessons from existing treaties and the institutions which implement their verification regimes will be essential. This should include the IAEA and OPCW as the most relevant but could include many others. However, all verification regimes are different due to the unique challenges associated with each one. Other work has been published by non-Government organisations and US National laboratories and this may provide valuable insights for the group.

In identifying key lessons learned and unresolved issues the group should consider both the technologies and inspection techniques required to achieve verification, but also the methodologies used to investigate and develop them. This should include consideration of how to engage and build the confidence of States in verification, and how all States can utilize the resources they have to develop verification solutions for the future.

Identifying the future challenges for effective verification should be the key task of the group. Reporting back to the United Nations Secretary General on what these issues are and the way in which they may be resolved in the future should be the groups aim. Given the breadth of work required encouraging more States to become involved in developing nuclear disarmament verification measures will be important.